# **PRODUCT** INFORMATION



## Chloropseudoephedrine (hydrochloride)/Chloroephedrine (hydrochloride) Mixture Item No. 9002346

MF: FW:	C <sub>10</sub> H <sub>14</sub> CIN 183.7
Purity:	≥95% (mixture of diastereomers)
Storage:	-20°C
Stability:	≥5 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### Laboratory Procedures

For long term storage, we suggest that chloropseudoephedrine (hydrochloride)/chloroephedrine (hydrochloride) mixture be stored as supplied at -20°C. It should be stable for at least two years.

Chloropseudoephedrine (hydrochloride)/chloroephedrine (hydrochloride) mixture is supplied as a crystalline solid. A stock solution may be made by dissolving the chloropseudoephedrine (hydrochloride)/chloroephedrine (hydrochloride) mixture in the solvent of choice. Chloropseudoephedrine (hydrochloride)/chloroephedrine (hydrochloride) mixture is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of chloropseudoephedrine (hydrochloride)/chloroephedrine (hydrochloride) mixture in ethanol and DMF is approximately 10 mg/ml and approximately 3 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of chloropseudoephedrine (hydrochloride)/chloroephedrine (hydrochloride) mixture can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of chloropseudoephedrine (hydrochloride)/chloroephedrine (hydrochloride) mixture in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

Chloropseudoephedrine/chloroephedrine mixture contains two diastereomer contaminants produced during the illicit manufacture of (+)-methamphetamine (Item No. 13997) from pseudoephedrine or ephedrine.<sup>1-3</sup> These isomers are present as an approximate 60/40 mixture and thought to be representative of that produced in the clandestine lab manufacture of methamphetamine. This mixture is designed for use as a reference standard for these substances during routine analytical checks using HPLC-UV and GC-MS instrumentation. This product is intended for forensic and research purposes.

#### References

- 1. Drug status report: (-)-Chloropseudoephedrine hydrochloride, (2010).
- 2. Allen, A.C. and Kiser, W.O. Methamphetamine from ephedrine: I. chloroephedrines and aziridines. J. Forensic Sci. 32, 953-962 (1987).
- 3. Ko, B.J., Suh, S., Suh, Y.J., et al. (15,2S)-1-Methylamino-1-phenyl-2-chloropropane: Route specific marker impurity of methamphetamine synthesized from ephedrine via chloroephedrine. Forensic Sci. Int. 221, 92-97 (2012).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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